

What is claimed is:

1. A modular gauge assembly having a plurality of modular blocks carrying removable gauge elements, said blocks being mountable in a plurality of spaced recesses of a tufting machine gauge bar, wherein:

(a) the modular blocks comprise:

(i) a front surface, a pair of side surfaces opposed to each other, a rear surface opposite to the front surface, a top surface and a bottom surface;

(ii) a detent extending from a surface of the modular block to interfit with a spaced recess in the gauge bar;

(iii) a plurality of vertical parallel slots transversely spaced between the opposing side surfaces for receiving gauge elements;

(iv) a pin opening extending transversely between the opposing side surfaces; and

(v) a bolt passage in communication with the pin opening.

(b) the gauge elements have proximal ends received in the parallel slots of the modular block;

(c) a lateral pin extends transversely and substantially through the pin opening of the modular block; and

(d) a securing bolt having a leading end extends through the bolt passage and biases the lateral pin against the proximal end of a gauge element.

2. The modular gauge assembly of claim 1 wherein the modular block comprises a second pin opening extending transversely between opposing side surfaces; a bracing pin extends transversely and substantially through said second pin opening; and the proximal ends of the gauge elements received within the parallel slots of the modular block are interposed between the bracing pin and the lateral pin.

3. The modular gauge assembly of claim 1 wherein the proximal ends of the gauge elements have a channel to receive a lateral pin.

4. The modular gauge assembly of claim 1 wherein the bolt passage is a threaded opening for receiving a threaded securing bolt.

5. The modular gauge assembly of claim 1 wherein the detent extends from the rear surface of the block.

6. The modular gauge assembly of claim 1 wherein the detent extends approximately from the center of the bottom surface of the block.

7. The modular gauge assembly of claim 1 wherein the lateral pin has at least two segments.

8. The modular gauge assembly of claim 1 wherein the lateral pin comprises a malleable metal.

9. The modular gauge assembly of claim 1 wherein the leading end of the securing bolt is conical and exerts a camming force on the lateral pin.

10. The modular gauge assembly of claim 1 wherein the modular block has a second plurality of parallel vertical slots transversely spaced between the opposing side surfaces for receiving proximal ends of gauge elements.

11. The modular gauge assembly of claim 10 wherein a second lateral pin extends through a second pin opening between the opposing side surfaces of the modular block and is adjacent to the proximal ends of gauge elements received within the second plurality of vertical slots.

12. The modular gauge assembly of claim 1 wherein a fastener secures the modular block to the gauge bar.

13. The modular gauge assembly of claim 1 wherein the gauge elements comprise loopers.

14. The modular gauge assembly of claim 1 wherein the gauge elements are disposed in a plane normal to the length of the lateral pin.

15. The modular gauge assembly of claim 1 wherein the securing bolt is positioned in a plane normal to the length of the lateral pin.

16. A modular block assembly for use in a tufting machine comprising:

(a) a modular block having a front surface, a pair of opposed side surfaces, a rear surface, a top surface and a bottom surface; and a plurality of vertical parallel slots separated by vertical walls and transversely spaced between the opposing side surfaces; and a pin opening extending transversely between the opposing side surfaces;

(b) a plurality of gauge elements having a distal end and a proximal end, the proximal ends of said gauge elements being received in the vertical parallel slots of the modular block;

(c) a lateral pin extending transversely through the pin opening of the modular blocks; and

(d) a first securing bolt having a leading end in contact with the lateral pin.

17. The modular block assembly of claim 16 wherein the leading end of the securing bolt is conical, having side walls coming to a vertice, and a side wall of the leading end is in contact with the lateral pin.

18. The modular block assembly of claim 16 wherein the lateral pin has a plurality of segments and a second securing bolt has a leading end in contact with a segment other than the segment contacted by the first securing bolt.

19. The modular block assembly of claim 18 wherein a lateral pin segment contacts a plurality of gauge elements.

20. The modular block assembly of claim 16 wherein the lateral pin is slightly deformable when biased by the leading end of the first securing bolt.

21. The modular block assembly of claim 16 wherein: the modular block comprises a second pin opening extending transversely between the opposing side surfaces; a bracing pin extends transversely and substantially through said second pin opening; and the proximal ends of gauge elements received within the parallel slots are interposed between the bracing pin and the lateral pin.